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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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REPORT FOR WEEK ENDING APRIL 19, 1924.
(Unless otherwise indicated.)

HAVRE:

The past winter, while not especially severe for this locality, has been characterized by extremes. Winter temperatures prevailed from Christmas until the last of January. February was unusually mild. In March there was an unusually regular range of temperatures, rising above freezing most every day with nights regularly cold. There were also many light snows during this month with light wind movement.

April to date has been cold and windy with light precipitation with the exception of a snow of .34 inches during the first few days.

Disking and cultivating started on the 10th. Rotation and variety plats are now almost ready for seeding. Because of the heavy infestation of Russian thistles, seeding will be delayed a few days yet.

Some of the first plantings of grass and flax were made on the 16th.

Several windy days during April have caused severe blowing to the west of the station. This has occurred more especially on land that was plowed last spring and the crops including the weeds taken by grasshoppers last year. These fields which were not ridged and cultivated have blown very badly. However, this land that was cultivated and more especially left in a ridged condition has not drifted enough to cause much damage.

Mr. M. A. Bell, a recent graduate of the State College at Bozeman, is now employed by the Montana Experiment Station as assistant in agronomy at this station, having reported for duty March 25.

Maximum temperature 65, minimum 20; precipitation .43 inch.

MOCCASIN:

The winter has been quite severe, with a minimum temperature of 40 below zero being recorded, and the cold weather still continues so that no field work has been possible. The past month and a half have been characterized by frequent light snows and unusually cold weather. Precipitation was received on 21 days in March and on 10 days thus far in April. The total precipitation for March, however, was only .04 inch above normal, and the precipitation to date during April is considerably below normal. With the exception of March, the precipitation for every month since last August has been below the 20 year average. There is an abundance of moisture in the soil nevertheless, as the snow melted slowly so that practically no run-off occurred. The snow has practically all disappeared at the time of the present writing, and only two or three warm days will be necessary to permit field work.

Fall wheat has suffered very little winter injury, and crop prospects as a whole are very favorable.

Maximum temperature 53, minimum 18; precipitation .03 inch.

HUNTLEY:

Rainy weather early in the week delayed the starting of field work until the 18th. Good progress is being made now, however, and another half day should see the ground ready for seeding small grains in the Rotations and Pasture experiments. The weather has been too cool to stimulate much growth in winter wheat and rye but the plants have a healthy color and appear to be in very good condition.

Maximum temperature 64, minimum 20; precipitation .49 inch.

HUNTLEY: Week ending April 5, 1924.

The past winter has been comparatively mild and open for this region. Little severely cold weather was experienced except during the period from December 30 to January 5 when a minimum temperature of 39 degrees below zero was reached and other low marks were touched.

Precipitation from October 1 to the middle of February was below the normal for each month and at no time was the ground covered with snow for more than a few days duration. March, on the other hand, had a total precipitation of 2.26 inches which is about three times the normal for the month. Most of this came in the form of daily snow storms between the dates of March 10 and 29. The snow melted almost as fast as it fell and the moisture entered the soil with practically no run-off taking place. Warm, windy weather during the last four days has done much to dry off the surface of the ground but the soil is still too wet to work.

While it is yet too early for an accurate determination to be made a survey of the plats seems to indicate that wheat and rye survived the winter in fairly good condition. Stands of alfalfa and brome grass are also good and new growth is well started. Fall plowing is well weathered down and should make good seed beds with a minimum of labor.

Maximum temperature 58, minimum 15; precipitation, Trace.

SHERIDAN:

Field work has been possible only one day this spring, and then only on the sandy ground with a south slope on the north side of the station. The north one-half Block A in Fields C and D was worked once in preparation for seeding to grass on the 14th of this month. Rain fell that night followed by snow during the night and the next day. The weather since has been cool and cloudy with frequent flurries of snow. Some of this snow still remains on the ground. With no further precipitation, the ground worked the 14th probably will be dry enough for further work Monday. It is difficult to tell when field work will be possible on the remainder of the station.

The fields were covered with snow almost completely from early in January until about the first of April. No bare ground was visible on the station March 28, after rapid thawing for two days, the depth of the snow at that time varying from very slight to over a foot over considerable areas, with deep drifts in many places. The rates and dates of seeding winter wheat and the winter wheat varieties were covered almost uniformly to a depth of over a foot. The greater part of the snow disappeared the first week in April and practically all of it was gone by the 10th. Run-off was unusually heavy. Ditching done last fall along the west side of the rotation field

Sheridan, continued:

extending north to the ravine running from west to east through the station, carried a large amount of water and tended to prevent more serious washing in the fields. The bottom of the ravine did not thaw until the most of the water had passed over, consequently little washing resulted there. Creeks about here have been out of their banks for a large part of the last two weeks, and considerable damage has resulted on the bottom land. Train service from the east was interrupted twice earlier, because of damage to the railroad bridge over Powder River at Arvada, about 40 miles east of here.

All fall seeded grain came through the winter with a good stand and is making a good growth for this season, with the exception of the November seeding of winter wheat, which has not emerged. All perennial grasses, alfalfa, and arctic sweet clover began to show green about April 1 where uncovered by the snow, and are now making a good growth. The other varieties of sweet clover are just beginning to show green shoots.

Precipitation (inch)	Jan.	Feb.	Mch.	Apr. to date	For past week
Ave. 1917-23	.75	.21	.86		
1924	.30	1.10	1.36	1.08	.79 inch

Maximum temperature 66, minimum 22.

DICKINSON:

Wheat was seeded on the Rotations on the 17th, oats on the 18th, and barley on the 19th. A date and rate of seeding test with Marquis, Kota and Nodak varieties of wheat was also started on the 19th. An alfalfa variety test was seeded on the 14th. The first seeding in the tillage experiment with flax was made on the 12th.

Preparation of land for seeding has been interrupted several times by snow although the precipitation so far in April has been below average.

The winter was very mild with little precipitation. The soil is wet to a greater depth than it has been for several years due to the heavy rains of last September.

Winter wheat and rye appear to have come through the winter in excellent condition where seeded on grain and corn stubble. Where winter wheat was seeded on fallow in Rotation 569 practically all of it was killed and the plat was reseeded to spring wheat.

Maximum temperature 61, minimum 27; precipitation .19 inch.

MANDAN:

Agronomy.

The past winter was one of the mildest on record in this section, and North Dakota in general. There was very little snow. The heaviest fall was about four inches, late in March.

Mandan, continued:

The soil has been very dry on the surface so far this spring. Field work started early in most sections of the State. A good deal of wheat seeding was done during March in the Red River Valley. A small percentage was seeded around here late in March and early in April. It is estimated that thirty to forty per cent of the wheat was seeded in the State by April 15.

Spring plowing started on the plats on April 7. Plats were prepared for seeding during that week, and were ready to seed on the 15th. It was stormy on that date, and snow came that night. Wheat (68 plats) was seeded in the rotations on the 18th. This is two days earlier than the average date of seeding wheat on this station. Rain came on the night of the 18th, which has delayed further seeding until next week. Wheat varieties for the Office of Cereal Investigations, were also seeded on the 18th. Soil samples were taken on the 18th.

Corn ground worked up different this spring than usual. The surface soil was dry and hard, and had loosened up during the winter. It worked up into a fairly fine mulch.

Weeds made a fairly early start. Pepper grass started April 1, and Russian thistle on the 10th.

Brome-grass and Crested wheat grass, started about April 1. The wheat grass is now about a week ahead of the brome in growth, and could be pastured.

There has been a demand for Crested wheat grass seed, and nearly all that was on hand at the station has been sent out.

Native vegetation has made a start, especially the sedges and pasture sage.

The precipitation during the winter was as follows: January .03; February .25; March .28. Maximum temperature for this past week, 55; minimum .26; precipitation .51, of which .24 fell on the night of the 18th.

Mr. W. E. Dove, Bureau of Entomology, visited the station on Tuesday.

Horticulture.

Seeds of tomatoes, cabbage, egg plant, pepper and celery were planted in the greenhouse on March 15, for use in the acre garden experiment.

Seeds of eighty tomato selections were planted on March 20 and 21. These latter have been planted in hotbeds, six being in use at the present time, while the plants intended for the garden were potted or transplanted to other flats, and are being grown in the greenhouse.

Mandan, continued:

Up to the present time it has been too dry to seed the early garden stuff, but the recent rain should put the ground in good shape.

Cannas, geraniums, and other bedding plants for the grounds, have received their final shift into pots, and are also being tended in the greenhouse.

The fruit crossing work in the greenhouse was fairly successful this year as a whole. Apples and crabs gave a much better set than plums or cherries. Out of 4177 apple and crab crosses, 1743 set fruit. Only 475 plums have set from 3970 crosses, and 406 cherries from 2209 crosses. Of course, a considerable number of these will fall before the fruit ripens. Plums on sandcherry roots seem to do very poorly in the greenhouse under our conditions, and in the future only plums on plum roots will be potted.

The fruit trees have all received their annual spring pruning, a more thorough job being done this year than we have had time for in previous years. The mild weather of late winter permitted us to get an early start.

Planting trees in the field is being started today; the recent rain and cloudy weather furnishing ideal conditions.

Arboriculture.

Shipment of trees to shelterbelt cooperators was started April 9, and is now practically completed. There still remains the stock to be sent to fruit cooperators. Shipments have been made as follows:-

	Montana	North Dakota	South Dakota	Wyoming
New plantings	40	46	42	14
Replacements for 1923 plant	54	64	43	18
Conifer additions	9	20	7	1

Planting of tree seed is also well along. Boxelder and Tartarian maple were put in on the 17th; Green ash on 18th. This work should be completed by the middle of next week. Planting conditions are favorable.

BELLE FOURCHE:

The week as a whole was windy, cloudy, and cold. Snow flurries occurred at frequent intervals but not enough snow fell at any one time to hinder field operations.

All of the plowing, disking, and harrowing preparatory to planting small grains was completed during the first part of the week. Spring plowed land worked down in excellent condition, and the grain planted on spring plowed land will probably germinate even though no rain falls soon to further mellow the soil. This is a condition that does not occur frequently.

Bellefourche, continued:

Wheat, oats and barley were planted on the 17th and 18th. The seeding of alfalfa and flax will be delayed in order to kill as many weeds as possible before planting.

Soil samples were taken on April 14. They showed that the first three feet of soil in all plats sampled were filled with moisture to their carrying capacity. One peculiar condition was noted. A layer of soil approximately six inches thick beginning at a depth of about eighteen inches below the surface was still frozen in the plat fallowed in 1923. Although the other plats sampled appeared to be fully as wet as the fallowed plat, no trace of frost was found in any one of them.

Precipitation occurred on five days during the week, but the total amount was only .08 inch.
Maximum temperature 67; minimum 28.

BELLE FOURCHE: Week ending April 12, 1924.

No field work has been done at the station or in the surrounding country as yet. On three occasions during the week the surface soil dried off enough so that plans were made for starting operations the next day, but each time a small shower of rain again wet the surface so that nothing could be done. The temperature for the week as a whole has been low.

Train service between Newell and Bellefourche has been stopped by washouts near Bellefourche. No heavy precipitation locally has occurred, but rapid melting of deep snow near the headwaters of the Bellefourche River has caused the river to rise to a height greater than has ever been recorded at Bellefourche previously. It is estimated that at least $100,000.00 damage has been done in Bellefourche alone. Several bridges across the river have been badly damaged, and all of the bridges are under water at the present time.

Winter grains on the dry land plats came through the winter in excellent condition. All of the plats have a good stand, and with the soil practically filled with moisture at the present time, prospects of a good crop are excellent.

No soil blowing took place during the winter as the surface soil was constantly wet.
Maximum temperature 73, minimum 24; precipitation .38 inch.

BELLE FOURCHE: Week ending April 5, 1924.

This has been a cold wet spring to date. The amount of precipitation so far this year has not been high, but the soil was so wet from last fall's excessive rainfall that even an average rainfall serves to keep the surface soil in a constantly wet condition. The severe storm that visited Minnesota and Eastern Dakota almost missed this section. The snow has been gone for nearly a week. Field work cannot commence for several days, as the frost is

Bellefourche, continued:

still in the ground and the surface soil is still very wet. The last two days have been good drying days and a few more like them will dry things up fairly well.

The precipitation for the year to date is as follows:

January .08 in.
February.88 in.
March .70 in.

There has been no precipitation in April. The maximum temperature for the last week was 58 degrees and the minimum 7.

ARCHER:

Weather conditions were favorable during the first part of the week but squally the last half with high winds. The average wind velocity during the 24 hours, 7 a.m. April 15 to 7 a.m. April 16 was 34.2 miles per hour. The gale carried with it .05 inches of precipitation in the form of snow. April 18 was also a very windy day with an average wind velocity of 20.6 miles per hour.

Field work which consists of plowing and disking is progressing and the manure in the barn yards is being removed. Recleaning seed in the granary occupies considerable time. The seed corn situation is serious in this region. Corn harvested before the early fall frost has a germination of practically 100 per cent while that harvested after the frost has a germination of about 50 to 60 per cent. The potato crop has been moving from the farms.

Maximum temperature 69, minimum 18; precipitation .09 inch.

ARCHER: Week ending April 12, 1924.

The weather has been marked by high humidity with frequent squalls of snow, hail and rain. The total precipitation, .30 inch, occurred on the 9th, 10th, 11th and 12th. The maximum temperature was 68 and the minimum 30 degrees.

The soil is too wet for field work but there is an abundance of work around the yards. Some of the grain in the granary has been cleaned and some of the corn ground for feed. Seed corn is in great demand which indicates that a large acreage of this crop will be seeded. The early prairie grasses are sending forth tufts of green leaves. Crested wheat grass on Series A and B has produced sufficient growth for pasture.

ARCHER: Week ending April 5, 1924.

Weather conditions have been such as to put the fields in good condition, providing the weather continues dry for a couple more days. The precipitation for January, February and March was .06, .30 and .87 inches, respectively. The heavy precipitation of last fall has made the prospects for winter wheat very favorable.

Archer, continued:

The fall plowed land is in the best of condition. It very likely will equal spring plowing in production. The corn land, which is to be cropped to small cereals, is very loose and moist.

Preparations are being made to begin various kinds of farm work April 7.

Professor W. L. Quayle was a visitor at the station, Saturday. Maximum temperature 57, minimum 11; precipitation .00 inch.

AKRON:

Snow fall the past winter has been heavier than for the previous two winters, consequently there is to be found an accumulation of water in low swales. There is every indication that the season is started with an accumulation of moisture. The winter has been characterized with frequent periods of very low temperatures. Soil blowing has not been a factor of the immediate vicinity.

Winter wheat is showing on most fields and has been making some progress the past ten days. Winter rye is about ready for pasturing. Considerable enthusiasm is encountered over the country-side concerning the winter wheat situation. Stands of winter wheat on the station seem to be satisfactory in every case.

Spring has opened late. There has not been a time during the month of March that field work could be attempted. The first work on the station was the seeding of the sheep rotation barley fields April 4. Thereafter the spring plowing was done on the rotations, the plats made ready for seeding April 9, and the seeding done April 12 to 14. Cereal varieties were seeded April 7 to April 12.

Mr. A. F. Swanson, of the Hays Station, was here in the interests of the cereal work. Professor Alvin Kezer, Head of the Agronomy Department, and Mr. W. G. Sackett, of the Bacteriology Department, of the State College, stopped here the week of April 7 to 12 on their way to a tour of the outlying experimental projects. Professor B. O. Longyear, of the Forestry Department of the State College, and Mr. Fred R. Johnson, of the Federal Forestry Department, were here the past week taking notes of the station forestry planting. J. F. Brandon attended the Sheep Feeders' Day at Fort Collins, April 18, returning today, April 20.

NORTH PLATTE:

Low temperatures and excess moisture during March delayed the beginning of spring work. Teams were started in the field on April 1. Work has been continuous since that time.

North Platte, continued:

Spring grains were seeded on the D. L. A. plats April 5 to 8. There is abundant moisture down to the 3d and 4th foot but the surface has dried out somewhat since being cultivated and emergence of grains is irregular and incomplete.

Winter grains came through the winter with a nearly complete survival and have made a rapid spring growth. Acreages are small in comparison with the normal but there will be no abandonment, and the conditon is better than in any season since 1916.

The first round of soil samples have been taken. The moisture content of all plats sampled is unusually high. Early fall plowed land compares favorably with summer tillage. Under both of these treatments the moisture content is near the carrying capacity down to the sixth foot. Under late fall plowing and in land uncultivated until spring the moisture content from the third to sixth foot is from 3 to 5 per cent lower than under fall or early plowing.

COLBY:

Weather conditions during the winter were favorable for winter wheat. Winter wheat made very little growth in the fall of 1923, even though there was ample moisture. From the first of February until the first of April there was some snow on the ground throughout this two-months period. There was considerable drifting, though in March most of the snows were more in the nature of showers. Beginning with the first of April the temperatures have been sufficiently high to insure good growth of the winter wheat. At the present time wheat on summer-tilled ground practically covers the ground. Soil moisture determinations are being made weekly on MCA, B, C, & D winter wheat and on 574 A, B, & D, and on the continuous stubbled in plat of winter wheat. The latter plat is the only plat which does not show a stand of winter wheat. Wheat over the county looks fine. There was a serious Hessian Fly infestation last fall, the first in this section of the state. Some fields were very severely damaged. The Hessian Fly is still in the flaxseed stage. Our opinion is that there will be some emergence of the fly during the coming week, if conditions remain favorable.

No seeding was done on the station and but very little in the Northwestern part of the state before the first of April. Seeding of the spring grains on the D. L. A. project was accomplished on the 7th of April. There is good emergence of spring wheat and of barley, while oats are just now beginning to show. There is ample moisture on the ground to insure growth for some time if there is sufficient to cause good emergence. There has been no precipitation of any consequence so far in April.

Spring grain variety work consists of 7 oat varieties, 8 spring wheat varieties, 19 barley varieties, and a barley nursery of about 800 rows, and a spring wheat nursery of 65 strains. A small field of Prelude spring wheat and of Coast barley were seeded for increase work. Flax is being tried on the station this year.

Colby, continued:

Work during the week consisted of disking of fields for sorghum and corn, trimming plats and working roads. The orchard was also thoroughly worked during the week.

Prof. McCollough, in charge of the Department of Entomology of the Kansas State Agricultural College, and Mr. Pinckney, of the Entomological Laboratory at Wichita, Kansas, were station visitors the previous week. They were making a Hessian Fly survey.

Several nights during the past week the temperature reached freezing or below. The days have furnished excellent growing weather.

HAYS:

Generally the weather has been very warm during the past four weeks, very little wind until during the last four or five days, some of which have been very windy. Snow, which fell during March, did not get off the ground in spite of the very warm weather the last week of March, so much field work could not be done until the first week in April.

All the spring small grains were sown on the project April 4 and 5. Also brome grass and peas were sown at the same time. These crops are now all up to a good stand except the brome grass and some of the spring plowed plats which are a little tardy about coming.

The ground never was in finer condition for work than it is in this spring. The unusually heavy rains during the fall and the big snow in March together with the heavy freezing during the winter put the soil in ideal condition for work. It also put it in just ideal condition for blowing and had there been half as much wind as there sometimes occurs during the early spring it is likely the surface of a very large area of western Kansas would have blown away. However, there were only a few days of sufficient wind vleocity to cause blowing, and during that time the soil started blowing badly. All those who have seen blowing and who would make an effort to prevent blowing got busy and cultivated or listed through their fields. The most dangerous portion of the Dry Land Project was pretty well cut up with lister furrows at that time. It never blew another day to amount to anything until during the last week. Up to within the last few days it has been one of the most quiet springs the writer has seen in this part of the state. The fields are now covered with so much growth there is no danger of blowing from date on.

The favorable growing weather which has prevailed has developed a growth of wheat, except on the late seeded fields, that hides the ground. The season is about as much ahead of time as it was behind time last year. The pastures are green everywhere, and wild daisies and other wild flowers are blooming. Alfalfa is six to eight inches high. Fruit trees are blooming. Weeds are up and coming thick everywhere. The Annual Round-Up occurs next week.

Maximum temperature 86, minimum 29; precipitation .12 inch.

GARDEN CITY:

The greatest amount of precipitation on record at this station was that of last year when a total of 36.19 inches was received. This amount is 13.62 inches above the average for a fifteen year period and is 9.68 inches above the previous high annual rainfall. 2.61 inches of precipitation have been received since January 1.

Spring work has been rather slow in starting because of cold wet weather. As the soil is already more or less wet it takes only a small shower to keep teams out of the field. Some spring plowing has been done on the dry land project and all spring plowing and listing will be completed next week provided the weather will permit.

Winter wheat came through the winter in good condition and is now making a rapid growth. Alfalfa is about four inches high and is growing rapidly.

The three plats of spring small grains were seeded on April 7 and have emerged to a good stand.

Soil sampling was started yesterday and it was surprising to find dry soil in the third foot of Plats A and B in the M.C. Winter Wheat Series.

DALHART:

The past week has had some pretty cool weather mixed in with the hot. The thermometer dropped to 21 on the night of the 16th. The next night it dropped to 25. These two managed to get a good bit of the fruit on station trees. There will be no peaches, few plums and about 40% of a cherry crop on the station fruit trees. It seems that the fruit was not damaged to a noticeable extent in Dalhart. The writer examined some and did not find a single blossom that was killed yet the tree was in full bloom. This was on cherries. The peaches are reported to be in abundance there too. It seems that the protection afforded by the buildings and trees in town account for this. The week was accompanied with two days of quite windy weather, one of these was a good one. Soil blowing was in evidence around the entire section surrounding the station. There was no soil blowing except where cinders and rocks were picked up around buildings, etc., where the wind had a suction action to get them into the air. The fields were in good shape and did not even start to blow.

Field work was not so rushing during the past week. Some listing was done in way of first preparation of seed bed. The remainder of the time was spent in cleaning seed, doing repair work and other odd jobs. A cement curb and walk was constructed in front of the office building. This was done in order to allow for beautifying the front a little in way of planting lawn grass and flowers. This spot has been a sore eye for a number of years. The wind whipping around the corner of the office has kept the dirt blown out to a thread bare place and it was impossible to get soil to remain there long enough to get grass started. With the curb there for protection it will be possible to fill in the place and get a stand of grass.

Dalhart, continued:

During one day there were snow flurries which lasted all day at intervals. It did not amount to enough to measure in way of moisture. It did not even cause the surface of the ground to show any dampness.
Maximum temperature 83, minimum 21; precipitation, Trace.

DALHART:

The past week has been rather unsettled, with considerable cloudiness but no precipitation. The days have gradually warmed up a little over last last week. The maximum temperature recorded during the week was 80, the minimum was 33.

Conditions are now ideal for field work. One team has been kept busy in the field preparing the land for planting. Most of this consisted of listing in the general field. This land will be re-listed before planting. This week saw the winding up of the threshing of last year's crop. This threshing consisted of cowpeas and milo. The cowpeas were moulded so badly that the threshing was discontinued as soon as sufficient good seed was secured for this year. The milo was in good shape, having been cocked and well protected. The remaining cowpeas were hauled off the field with the manure spreader and spread out in the vineyard for mulching.

Considerable planting was done during this week in way of shade trees, berries, grapes, etc. Five varieties each of gooseberries and currants and six varieties of black berries were planted. Several varieties of grapes were set out to replace ones that died last year. A number of shade tree seedlings was set out in a nursery for distribution in another year. Considerable tree pruning was done and cuttings made from Chinese elm. These cuttings were set out in a place where sufficient water is available for use in starting.

The small grains are making good headway. There is a good stand of everything, winter rye, winter wheat, oats and barley. The rabbits have been feasting on these, so precautions are being taken today by way of the poison route. It is hoped that the pests will come in contact with this poison grain and be eliminated from the race. Aside from this everything is lovely.

DALHART: Week ending April 5, 1924.

In order to bring this report up to date it might be well to go back a considerable distance and review conditions leading up to the present. Going back to the fall of 1923 conditions were very unusual in that the precipitation was abnormally large. After all harvest was finished (and this was done between rains), the crops being full of watery juices were slow in curing. Snows were quite frequent from early in November until January.

Dalhart, continued:

During January the weather was more favorable and the shocked feed stuff cured to the extent that satisfactory weights could be taken on the majority of the crops. Those that were questionable were weighed and samples were tagged, sacked and weighed for rechecking after being thoroughly dried. The bulk of the threshing (all the experimental crops), was done during January. The general field crops were held over until after all experimental plat work was finished. The months of January and February were not cold and the disturbances from storms and heavy winds were few. In fact there were no heavy winds during either of the two above months. Moisture conditions were excertionally favorable. On March 4 the spring seeding of small grains was made. Oats were planted on the rotations, also oats and barley in the general field for feed. March has been an unusual month in that there has been an abundance of snow and winter weather with a lack of wind. There were only three days during the entire month that were bad and they were stem-winders. They came at a time when the soil was wet from snows and soil blowing was in fashion for about a couple of hours. As soon as possible the teams were put to work cultivating and all soil blowing on the station was stopped before anything was damaged. The temperature dropped to 5 degrees above on the night of March 8. This was sufficiently low to get some of the fruit. There remains at this writing about 2 to 4% of apricots, 50 to 60% peaches, and other fruits seem to be 100%. Unless a heavy freeze comes during this month there will be good prospects for nearly all fruit. The peaches are the next crop that are likely to be killed and at present there are enough good buds to insure a good crop.

During the first week of April there has been considerable inclement weather, consisting of very light snow flurries, light showers and damp misty weather with considerable cloudiness. This has not delayed the work much because there was inside work to be accomplished, such as seed cleaning, etc.

During the days when field work could be done the teams were busy in the field listing. In order to save time this spring and to help in combatting the excessive weed growth, which is expected, the general field and alternates are being listed early. They will be relisted when weed growth gets a sufficient start. This will kill a large per cent of the weeds and will leave the field in good condition for planting. It also serves as protection against soil blowing from these fields. The lister will be started again this afternoon. The soil was a little too damp this morning for listing. During this period the team was used in dragging the roads and putting them in shape after the recent rains.

At this writing the oats and barley are just showing above the ground. It is hard at this time to estimate the stand but from the way these crops are coming it is evident that an extra good stand will be secured. The writer overheard one farmer make the statement that the spring sown small grain was gone by the wayside on account of so much cool damp weather. This is not the case with the grain planted here. In digging down where no sprouts were showing above the ground it was found that the grain had sprouted and was just ready to come through in abundance. The winter rye

Dalhart, continued:

on the rotations is looking good and making good headway at this time. All during the fall and winter it looked as if it did not matter which way it went. However, since the last week or so it has come to the front and ought to make a good showing. The stand is almost perfect. Some trouble has been experienced with rabbits eating the rye. Poison grain was scattered several times with good results. More poison grain will have to be mixed and scattered in the near future.

The shade trees in plantings around the buildings were thinned this spring from 8 x 16 ft. to 16 x 16 ft. The trees were distributed to farmers and residents of this section who came and dug the trees and filled the holes. There were over some 200 trees to be removed and these were all taken in one and one-half days. The farmers are getting very eager to improve their farms by the planting of trees. This was also a good means of getting some farmers in touch with the station who had never visited before. When they come after trees they see things that are of interest and that brings them to ask questions. It helps to stimulate the farmers interest in what is being done here for the benefit of this whole section.

Mr. L. F. Locke, of Woodward, Oklahoma, spent two days here in assisting with tree-pruning and grape-pruning work in March. Much practical information was the result of this visit.

TUCUMCARI:

Although the precipitation during 1924 has been unusually low, only 1.04 inches to date, the soil is in excellent condition, due to the exceptionally heavy rains of last autumn, and preparation of the land for planting throughout this locality is progressing rapidly. Very likely the crop acreage of this county will be the greatest in a number of years. Cotton is receiving a great deal of attention and estimates of the acreage in this county run from 20,000 to 30,000 acres. Last season about 800 bales were ginned in Quay County, the average yield doubtless being in the neighborhood of one-sixth bale per acre. The station rotation cotton made 140 pounds lint per acre, far above the eleven year average of 97 pounds lint.

Pasture has been good throughout the winter and livestock wintered in good condition. Grass has grown very fast the past ten days and land which was brown two weeks ago is now a bright green.

Temperatures the past three months have been several degrees lower than normal, while wind velocity has been slightly below the average. Soil blowing has been very bad this spring, due to a few days of very high wind velocity. An unusual amount of early field work has been necessary to hold blowing to the minimum.

Tucumcari, continued:

The forty head of steers which were on feed from December 1 to March 30 were marketed early in April. Gains on all lots approached very closely 2# per head per day. Shrinkage and selling price per lot, which were determined by the State College officials at Kansas City, will be considered when economy of ration is computed.

The past six weeks about twenty-five varieties of trees have been planted, ten to the variety. Among these were eight varieties of evergreens. The soil was in excellent condition when planting was done and the trees have been well watered. Conditions were so favorable that a very large percentage of hardy varieties should live. If a large number of any variety die it will be almost safe to assume this variety is not to be recommended for planting in this locality.

Some repairs have been made on fences, the usual spring cleaning of lawns is in progress, extensive work is being done on the highway leading from the station, a portion of the south field has been plowed and spring tooth harrowed, and the north field is being listed.

Temperatures of 28 degrees on the night of the 16th and 17th killed a number of fruit buds, although the percentage cannot as yet be determined. Smudging a portion of the orchard apparently reduced the damage. All fruits are well loaded with blossoms or buds this spring and there is still a possibility of a good fruit crop.

Maximum temperature 82, minimum 28; precipitation 0. Wind Velocity 7.6 miles per hour. Evaporation 2.054 inches.

BIG SPRING:

Although an abundance of rain fell during the last two months of last year, only a little more than an inch has fallen thus far this year. This amount came in several light showers which did not soak the ground up very much.

All of the fall and spring plowing was completed in good shape, and there is plenty of moisture beneath the surface, but a rain will be needed before much planting can be done. The April 15 date of seeding was made as per schedule, but it is doubtful if much of the seed will germinate with the present amount of moisture which is available in the surface six inches.

Except for two or three occasions, there has not been much wind this spring, but on these occasions it moved considerable sand besides several chimneys. The worst blow occurred March 28, and at this time it blew the chimney off of the station residence and damaged the roof somewhat.

Two or three freezes about March 10 decreased the prospects for a large fruit crop this year, although most of the trees are now set with a fair amount of fruit.

Big Spring, continued:

The cattle feeding experiment is progressing in good shape. The calves have been on feed for nearly 140 days and are gaining from two to two and-a-half pounds per day. It is planned to feed them about forty days longer at which time they should be finished for the market.

Two or three freezes about March 10 decreased the prospects for a large fruit crop this year, although most of the trees are now set with a fair amount of fruit.

Maximum temperature 90, minimum 34; precipitation .05 inch.

LAWTON:

Fall rains produced satisfactory wheat and barley pasture affording a much needed supplement to a limited supply of rough feed produced last year.

Although the winter was not severe a continued period of freezing exceeded that which usually prevails. Much cool weather with short intermittent periods of warmth retarded the growth of spring crops and a satisfactory prosecution of farm work.

The latest snow on record at the station fell March 13. It was accompanied and followed by some rain and was not harmful.

Oats, spring barley, sweet clover, and alfalfa were seeded at the usual time in February and March. Good stands were secured but subsequent growth has been slow. Winter barley is not in the boot and rye is pretty well headed. Corn which was planted on April 3 was emerging in good shape by the 18th. The first date planting of grain and forage sorghums was made April 15 on a very satisfactory seed bed.

The subsoil is well filled with moisture and surface conditions are satisfactory.

Fruit prospects are encouraging and are now beyond the danger point of frost.

The cotton acreage throughout this part of the state will be heavily increased this year.

WOODWARD:

Last fall the weather from the middle of September to the latter part of October was very wet, there being a total precipitation of 23.05 inches from September 1 to December 31, (which is practically as much as our annual average). All but 1.73 inches of this amount fell in the months of September and October. The precipitation from January 1 to March 31 was 3.71 inches, which is almost an inch above the normal for these months.

Woodward, continued:

This spring has been rather backward. Most of the fruit was practically ready to bloom in March when we had about two weeks of cold weather with a good deal of snow, which set the fruit back considerably and killed a good many of the buds on the peach trees, although there were enough buds left of most varieties to make a good crop. All of the peaches, most of the plums, and some of the apples and cherries have bloomed. We had a slight frost Thursday morning, but as the temperature only went down to 33 no damage was done.

The work on the station is going along in good shape, preparing the fields for planting. Two listers have been running most of the week and the tractor has been running, discing out the orchard, vineyard and windbreaks, which were planted with wheat to keep the soil from blowing, also roads between the plats. The Cereal Office first date-of-planting was planted April 15, and the corn on the D. L. A. plats was planted the same date; variety corn was planted today, the 19th. Within the last month some planting has been done in the orchard and vineyard replacing trees and vines which died last season. Some plantings of ornamental trees and shrubs have also been done.

Winter wheat and rye grew very slowly last fall, the wet weather and cold keeping it back, and these were rather small during the winter but are beginning to grow rapidly and looking very well at present.

Mr. Chilcott, the Superintendent, and Mr. Sieglinger, of the Cereal Office, are making an offical trip to Lawton and Oklahoma City this week.

Maximum temperature 84, minimum 33; precipitation 0. Average Wind Velocity 7.2 miles per hour.

NOTE:

The Chief of Bureau has issued the following instructions:

"Hereafter unskilled laborers may be employed under letter of authorization without appointment on a per diem w.a.e. basis for not to exceed sixty days in any one calendar year. This is intended to cover intermittent or short time employment. Please note that <u>this applies only to unskilled labor</u> and under no circumstances must be interpreted to include any other kind of employment. The Civil Service Commission rigidly restricts to a maxiium of thirty days in a fiscal year employment without appointment in positions coming within the classified service. This ruling must be faithfully complied with."

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DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

APR 26 1924

REPORT FOR WEEK ENDING APRIL 26, 1924.

FAVRE:

The past week has been unseasonably cool and dry, resulting in very little growth even in native grass. Winter rye made a slight growth but winter wheat has been very slow. While the wind velocity has not been especially strong it has been steady and extremely variable as to direction.

Extreme baking of soil has been noted on land that has not been cultivated.

Seed bed preparation for rotations and varieties was completed on Wednesday of this week but seeding is being delayed in order to allow germination of Russian thistles, which will be killed by cultivation just ahead of the drill. Early dates of seeding in a test to determine the cultivation necessary to kill thistles were made during the week.

Hybrid fruit trees as well as gooseberries, currants, and grapes were received from Mandan during the week and are planted. Very little winter killing is noted in the older shelterbelt. Box elders and poplars are just starting to show leaf.

Maximum temperature 65, minimum 18; precipitation 0.

JUDITH BASIN:

Aside from a few moderately warm days early in the week, cold weather has prevailed, and the temperature has dropped considerably below freezing almost every night, the ground being frozen too hard on some mornings to permit work in the field. All fall grains, pasture and hay crops are more backward than usual, as are also the trees and bushes. Winter wheat and rye still continue to appear in first-class condition, and very little winter killing has been reported in the Judith Basin.

Field work was commenced on the 22nd and has been devoted to springtooth harrowing and double disking plats on the rotations and other experimental fields. Seeding of the spring cereal nursery is almost completed.

Maximum temperature 63, minimum 16; precipitation, Trace.

HUNTLEY:

The entire week has been favorable for field work and as a result the preparation of the ground and seeding of small grains was completed on the rotations and in the pasture experiments. Plowing for corn is under way today.

While the weather has been too cold to encourage plant growth to any great extent winter rye has appeared to make more progress than winter wheat or the perennial crops.

Maximum temperature 74, minimum 20; precipitation, Trace.

ARDMORE:

Precipitation for the fall and winter months at this station was practically normal. The total amount of rain and melted snow recorded from October 1, 1923 to March 31, 1924, was 3.16 inches. This may be compared with the precipitation for the same period a year ago which was 4.13 inches, and with the 10-year normal for the same period which is 3.17 inches. The total snowfall during the months mentioned was 47 inches. Most of this melted soon after falling, and the ground was bare during the greater part of the winter.

The spring season opened abnormally late. First field work was done on April 7, and, at this late date, only tillage with light implements such as the drag harrow and grain drill was possible. Field operations were again delayed by a light snow on the 8th, and first seeding was accomplished on the 9th. Rotation plats of small grain were seeded on April 17 and 18. This was two weeks later than the normal seeding date for these plats at this station.

The month of April has been unusually dry with abnormally high winds. It has been necessary to cultivate fallow and fall-plowed land two or three times to prevent soil blowing. The total precipitation from April 1 to 26 has been only .30 inch. So far the month has been the driest in the history of the station for the same month. The surface of the ground was very dry prior to a light snowfall on the 25th.

Native vegetation was slow about starting growth due to the low average temperature for this time of the year. First growth of native grass was noted on April 12. Crested wheat grass and brome grass started growth about April 5. The wheat grass has made the most rapid growth and is now ready for pasture.

Seeding of all small grain has been completed at the station, and a 40-acre field of Grimm alfalfa has been partly seeded.

SHERIDAN:

Field work was possible the first three days of the week. During this time the ground for the small grain varieties was prepared and seeded. The north one-half of Field D, Block A, was seeded to crested wheat grass, and of Field C, Block A, to a mixture of crested wheat grass, brome grass, and alfalfa. The Rotation field also was sufficiently dry Monday to begin work. All plats to be disked were worked once and plowing was begun Wednesday. Plowing, however, was difficult because of the wet condition of the ground. Summer fallow and fall plowing dried with a very hard crust and it was found necessary to disk all of those plats in order to get them in shape for seeding. About two days' work still remains to be done on the rotation field before it can be seeded.

Sheridan, continued:

A light rain fell on the evening of the 23rd, followed by snow during the night and a large part of the next day. The actual amount of precipitation was not great, but with the soil already containing about as much moisture as it would hold, the effect was as great as with a much greater precipitation on a drier soil. The weather since has been cold and snow has fallen at frequent intervals.

Winter grain continues to make a good growth. Weeds also are becoming quite evident. Grass on the range is exceptionally good.
Maximum temperature 74, minimum 27; precipitation .30 inch.

MANDAN:

Agronomy.

The past week has been unfavorable for field work. It was, however, possible to do seeding on two days.

Oats and barley were seeded in the rotations on the 23rd and 24th. On the 24th the wind blew hard and some soil blowing took place. On the 25th it started to snow about noon, and is still snowing today, making a total of approximately three inches on the ground. About 3.5 acres of barley for feed was seeded. Oat varieties for the Office of Cereal Investigations were seeded on the 23rd.
Maximum temperature 75, minimum 23; precipitation .73 inch.

Arboriculture.

Tree shipments were completed at noon of the 23rd, including the fruit trees sent out to the County Demonstrators.

Fifteen pounds of Caragana seed was put in on the 24th, and approximately 50,000 Northwest poplar cuttings were planted in the ground by noon of the 25th, when work was stopped by a snowstorm which still continues.

BELLE FOURCHE:

The weather continues cold and windy. Two warm days occurred the middle of the week, but the weather turned cold again and the temperature has been below freezing for the last 36 hours. At the present time there is about two inches of snow on the ground.

Grain planted over a week ago has not commenced to sprout. The winter grains, however, seem to be stooling considerably and give promise of a very thick stand. Alfalfa and brome grass have made some growth though not as much as they usually have by this time. The native grasses have barely commenced growth.

Sweet clover, brome grass, and peas were planted on the 23rd.
Maximum temperature 79, minimum 27; precipitation .09 inch.

ARCHER:

The first four days were balmy and field work progressed rapidly. All Dry-Land plats were plowed and all but six were cultivated with the duck-foot when the storm which arose during the night of April 24 put an end to all field operations. In the general field 17 acres of Horn barley were seeded and 12 acres of corn land plowed. The high cold wind which prevailed during Thursday made work in the open very uncomfortable. The average hourly wind velocity for April 24 and 25 was 32.7 and 24 miles, respectively.

The .17 inch of precipitation which occurred in the form of snow during April 24 and 25 is badly drifted.
Maximum temperature 73, minimum 9; precipitation .17 inch.

AKRON:

The first three days of the past week were warm and very favorable for field work. The ewes were allotted Tuesday and Lot 3 turned on to the rye pasture. Rye then stood well stooled and longest leaves about four inches. The new rotations were seeded to spring wheat in the fore part of the week. Alfalfa on plat B of Rotation 42 was reseeded. Field 2 of Sheep Rotation 51 was plowed for corn. Field 2 of Sheep Rotation 28 was started but work was stopped on account of bad weather the last of the week. Cold brisk northwest wind blew continuously from Wednesday until Saturday evening. Some snow fell Wednesday and more Friday and Saturday morning. Saturday afternoon the storm broke away and at times the sun was visible. Cold wind continued until nightfall. Minimum temperature on the night of the 25th was 17. Considerable ice was formed on open pools of water. Plum and apple blossom buds were in some cases so far advanced as to show color. It seems likely that these two fruit varieties may have been injured. Shrubbery on the south and east sides of the buildings had begun to leaf out and some of these show frost injury. Myriads of thistles had germinated and it is hoped the cold weather has killed these. Grasshoppers had been reported in devastating numbers in some parts of the county and it is hoped they have succumbed.

Native sod is beginning to green and on all sides there is evidence of early vegetative growth. Field work on all sides is some two weeks late.
Maximum temperature 81, minimum 17; precipitation .19 inch.

NORTH PLATTE:

The weather has displayed a great variety of conditions during the week. High winds, cloudiness, and low temperatures have predominated but one or two calm clear days have been sandwiched in between.

Winter wheat is growing rapidly and spring grains are making a fair start. Roadways have been lined out and cultivated and a beginning has been made in preparing land for corn. Precipitation amounting to .11 inch fell on the 22nd. This represents the total for the month to date.

COLBY:

Taken as a whole weather conditions have remained good for field work. Work during the week has consisted of soil sampling, cultivating alleys in the D. L. A. project, working roads on the D. L. A. project, grinding and hauling feed, and double disking fields which are to be in sorghums or corn.

The spring grains are coming up. The spring wheat is up to a good stand while the oats and barley do not show quite as good a stand at the present time. Winter wheat is growing fine. Fallow wheat covers the ground good. Only 0.13 inch of rain was received during the week.

Hessian Fly emergence started about the middle of the week. Several unfavorable days for the fly came at the time of first emergence. Professor L. E. Call, Agronomist of the Kansas Station, and Professor E. O. G. Kelly, Extension Entomologist of the Kansas State Agricultural College, were station visitors on Wednesday. They were especially interested in the Hessian Fly.

Friday and Saturday were spent by the writer going to and attending the annual "Round-Up" at the Fort Hays Experiment Station. The trip was made by automobile. Winter wheat is too far advanced on most fields for this time of the year. With the exception of the first 30 miles east of Colby wheat sown on corn ground looks exceptionally good. There is Hessian Fly infestation through the area. Heavy frosts are still occurring.

HAYS:

The week has been one of extreme temperatures, three windy days, and the sky has for the most part been clear.

All small grains are making good growth. Winter wheat sown the latter part of September on fallow or on most any method of preparation except stubbled in, is now six to eight inches high. Rye is from 15 to 17 inches high. Alfalfa about ten inches.

Brome grass seeded early in the month is not coming well, and the grass and weeds are coming so thick on the plat it looks like it may be best to cultivate and reseed.

During the week some cultivation and harrowing was done on corn and kafir ground. Alleys and roads cultivated, and considerable time spent in preparation for the annual round-up held on the station today.

The total attendance at the round-up is believed to be about 1000. Between 750 and 800 people were fed at the noon luncheon.

The State Board of Agriculture met at Hays for one of their business meetings Friday. In the afternoon the members of the board were shown over the experiment station. Several members of the board attended the round-up.

GARDEN CITY:

Growing conditions were favorable during the first half of the past week, but low temperatures during the last half stopped the growth of most plants. A killing frost-- a temperature of 26, was recorded this morning. None of the crop plants were injured severely, although alfalfa showed slight damage.

Spring plowing and listing of plats on the dry land project were completed this week. The soil moisture content is such that the plats are left in excellent condition.

The concrete walls of the cellar under the new combination foreman's cottage and bunk house were poured this week.

Maximum temperature 87, minimum 26; precipitation .15 inch.

DALHART:

The past week has been somewhat of a mixture for weather. There was some rain, which was preceded by several days cloudy weather. As a whole, the week was considerably warmer than last week. However, two days have been quite cold. On the afternoon and during the night of the 24th there was a light rain. It came in a slow drizzle and netted .36 inch. There was not a great deal of need for precipitation at this time but this little bit will help to connect the surface moisture with the lower moisture and to give the spring grains a little boost. The temperature dropped to 27 on Friday night. Ice froze to a thickness of 1/2 inch in the open where small quantities of water were unprotected. It is reported from Dalhart that this freeze got the remainder of the fruit, however, the writer does not think it possible. The fruit trees in the station orchard withstood this freeze o.k. The fruit that was not killed by the frost of the 16th has survived.

Small grains are jointing and making fair progress. The winter rye ranges from six inches to eight and ten inches in height and is in the boot. Oats and barley are not far enough along yet to joint but these are making good headway. The grass on the range has greened up and grown enough the past week to allow some grazing.

Considerable field work was done during the week. The listing, leveling and harrowing of the listing methods was done the first of the week. All the D. L. A. plats, except plats A of the C.C. series, also plats F, same series, were double disked. This was done in order to improve the soil condition and to give the weeds a good chance to germinate before the plowing is started. First preparation was made on the cereal block for the date planting. This preparation will be completed the first of the week for May first planting. The remainder of the block will be prepared later and worked as needed. The main aim is to have a well prepared seedbed for everything planted and to keep it as free from weeds as is humanly possible. Other important jobs were worked on during the week but not finished. These are done at odd times when field work cannot be done.

TUCUMCARI:

Work on the road was completed this week, plowing of the south south field was resumed, and listing of the north plat field completed. Fences have been repaired and cleaning of lawns and yards nearly completed.

While there is an abundance of moisture below the first few inches, the top soil has dried to a great extent. Precipitation of 0.16 inch on the 25th and snow at the present time will probably moisten the surface soil as far as drying had occurred. The temperature this date is 30 degrees, with indications of another killing frost. Most peaches were killed by the frosts of 28 degrees on the 16th and 17th, while apples, pears, and cherries were injured but slightly.

Entomologist J. R. Horton, of Wichita, spent the week in this county, attempting to determine the extent of injury occasioned by a cut worm which is seriously attacking small-grain fields on the plains to the south of Tucumcari. While here he examined corn stubble for presence of the southwestern corn borer. Accurate counts indicate that practically every stubble last fall harbored one or more corn borer larvae, while at the present time very nearly one-half of the stubble contain live larvae.

Maximum temperature 83, minimum 30; precipitation 0.16 inch.
Evaporation 1.859 inches. Wind Velocity, 6.4 miles per hour.

BIG SPRING:

Conditions have improved considerably during the past week. Three rains totalling .71 inch have helped to moisten things up during this time. Enough moisture fell to soak up the surface sufficiently for planting purposes. All of the old land of this vicinity has been listed for sometime so now a good many farmers will start planting during the coming week.

The work of the past week has consisted mainly of cleaning up the orchard and tree rows and grinding feed. April 23 the calves were weighed for the close of the fifth feeding period. During the last twenty-eight day period, they made the following daily gains: Lot one, on sumac silage, 2.1 pounds, lot two, on sumac fodder, 1.90 pounds, lot three, on cotton seed hulls, 1.41 pounds. All lots were fed the same amount of ground milo and cotton seed meal.

Maximum temperature 94, minimum 40; precipitation .71 inch.

LAWTON:

Field work progressed very satisfactorily until the latter part of the week. All small grains are making excellent growth and good stands of corn were obtained earlier in the season. A rank growth of alfalfa exists and the first cutting will be ready for harvest within a short time.

A few farmers over the country planted some cotton during the early part of the week and a great many have planted a part of their kafir and feterita for early feed.

Lawton, continued:

On the evening of the 24th this part of the country was visited by a rain, wind, and electrical storm that was extreme in its severity. The wind attained a very high velocity and flood conditions obtained very quickly. Considerable damage resulted from the lightning. The station rain gauge showed only 2.16 inches; the Weather Bureau gauge in town showed over three inches, while measurements of 4 to 5 inches were recorded on farms in various parts of the county. Most of the precipitation fell within a very short time and soil washing was rapid.

Just previous to this storm an attempt to control soil washing on plats in Field A was completed. The attempt, however, was only partly successful.

The sorghum plantings made on April 15 were emerging on the 24th. The first planting in the cotton date test was made on the 24th. Acala, Rowden, and Half-andhalf were used in the first planting date.

Among the various ornamental shrubs growing on the station, the Spirea Van Houtte demonstrated this spring their full value as one of the beautiful shrubs among the hardy groups adapted to this country.
Maximum temperature 84, minimum 41; precipitation 3.08 inches.

WOODWARD:

Most of the week has been spent in preparing the general fields for planting. Considerable listing and some plowing has been done.

Mr. McPheeters, Farm Engineer, of the Oklahoma State Extension Service, in cooperation with the County Agent, held a terracing demonstration on the station on the 25th, and quite a number attended.

Mr. Chilcott, the Superintendent, and Mr. Sieglinger, of the Office of Cereal Investigations, returned to the station Monday evening from a trip to Lawton and Oklahoma City.

Practically all of the grapes have started growth. The temperature dropped to 33 above last evening but no damage was noticed to the fruit.
Maximum temperature 86, minimum 33; precipitation .48 inch.
Average wind velocity, 9.7 miles per hour.